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APPLICANT : NIPPON STEEL CORP;

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TITLE : CATALYST FOR REMOVING NITROGEN OXIDES IN EXHAUST GAS

ABSTRACT : PURPOSE: To provide the title catalyst with superior low temp. activity which scarcely suffers a lowering in activity due to ammonium sulfate type by-products, and is easily regenerated by heating.

CONSTITUTION: The catalyst for denitration by an ammonia reduction method consists of  $TiO_2$ ; 2-99%,  $V_2O_5$ ; 0.5-50%, and oxides of Y or lanthanides; 0.1-50%. A titanium-contg. cpd. such as titanate acid, titanium chloride or ilmenite, a vanadium cpd. such as vanadyl sulfate, and a cpd. contg. yttrium or various lanthanides are mixed in a predetermined ratio, kneaded with a binder such as dextrin or ammonium stearate, and press or extrusion molded. In case the cpds. are supported, a soln. of the above mixt. is impregnated into carrier made of heat resistant material molded into a predetermined shape. The above molded product or impregnated carrier is then calcined at 350-450°C to convert each of the components into oxide.

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